

2. One or two drops of the solution, according to the season, accelerate the movements; six or seven cause tetanus of the ventricle.

3. Digitaline increases the tonicity of the cardiac fibres, and thus slows the repetition of the contractions, reducing their number very decidedly.

4. The auricles are only slightly or not at all excited by digitaline; in them the systolic frequency does not undergo any diminution analogous to that of the ventricles; this is why the ventricular tonicity embarrasses the cardiac functions.

5. The ventricular diastole never seems aroused, but appears to be subordinated to the action of the auricular muscular fibres. The auricles may become filled to excess, to the point of being considerably distended, and subsequently paralyzed, which excludes the idea of activity.

6. The assertion of some physiologists, that the myocardium retains its blood during the systole, cannot be admitted; its pallor, clearly observed, is a direct proof to the contrary.

7. Digitaline, proportionally to the time of the experiment and the quantity employed, accelerates the peripheral circulation according to the augmentation of the impulsive force of the heart. As the retardation of the ventricular contractions and the ventricular tetanus occurs, the circulation first diminishes, then is arrested.

8. The capillary network slightly dilates, and nevertheless the circulation may be accelerated, provided that the medicine does not oppose itself to the diastolic extension and the rhythmic frequency of the ventricle.

9. It appears, therefore, that the action of digitaline localizes itself principally on the heart, and acts only secondarily on the vessels.

10. Digitaline appears to increase the faculty of absorbing oxygen in the respiratory substance.

11. The opinion of the Berlin school that digitaline in small doses is excitant, and in large doses depressant, is not borne out by experience. This substance always excites the cardiac tonicity and dilates the vessels; in toxic dose it causes tetanus and rupture of the heart.

12. *En résumé*, digitaline has the effect of remedying feebleness of the cardiac systole; it may assist the peripheral circulation by augmenting the *vis a tergo* and dilating the capillaries; it may be of service in disorders accompanied by insufficient oxidation of the blood.

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THE TREATMENT OF NEURALGIA.—Dr. E. C. Seguin, *N. Y. Med. Rec.* Jan. 4, narrates three cases of severe chronic trigeminal neuralgia, one of which was successfully treated with gelsemium and Fowler's solution, while the other two were not relieved until Duquesnel's aconitia, in gradually increasing doses, was employed. He closes his account as follows:

It seems to me that three conclusions may legitimately be drawn from the above related cases.

1. That there is a possibility of relief in most severe cases of epileptiform trigeminal neuralgia. The usually received opinion is that, in such cases, recourse must be had to operation upon deep branches of the nerve, excision of Meckel's ganglion, etc., and to the systematic use of morphia to make life endurable. After my experience with the above cases, I am dis-

posed to urge a sufferer from trigeminal neuralgia to make a trial of medicinal treatment.

2. The advantage of using unedicines systematically. Not only should the doses of any one remedy be administered regularly and in progressively increasing doses, but several remedies should be used in succession, so as to profoundly affect the system. Of the medicines applicable to the treatment of neuralgia, the following are those which I can recommend most highly: aconitia, arsenic, iodide of potassium, gelsemium, helladonna, quinia, morphia, galvanism, the actual cautery, Thompson's solution of phosphorus.

3. In the treatment of chronic neuralgia and of many neuroses, it is necessary to obtain the physiological effects of the drug employed, in order to do good. This principle of heroic medication is one which ensures success in seemingly desperate cases, and its execution requires the utmost watchfulness on the part of the physician, and intelligence and faithfulness on the part of the patient and his attendants. Many unpleasant consequences of such treatment may be avoided if we at first give very small doses of the remedy, and then make a very progressive increase. The physiological effects are illustrated in the above cases; in the treatment of chorea by arsenic; of malarial affections by quinia; of spinal congestion and myelitis by helladonna; of syphilitic disease by mercury and iodide of potassium, etc., etc.

Inasmuch as the good effects noted in cases 2 and 3 were obtained by the action of Duquesnel's aconitia, it may not be amiss to close this short communication by quoting the conclusions of a report on aconitia, recently made to the N. Y. Therapeutical Society, by its committee on Neurotics.\*

The chairman of this committee says:

"From the above cases, the following conclusions may be justly drawn, I think:

"1. The susceptibility of individuals to Duquesnel's aconitia varies enormously; one individual in the series having been severely affected by  $\frac{1}{100}$  grain, while another tolerated with no special symptoms  $\frac{1}{4}$  grain every three hours. On the average, distinct physiological and therapeutical effects were obtained by giving  $\frac{1}{100}$  grain three times a day.

"2. Out of six cases of severe trigeminal neuralgia, one, probably a reflex neuralgia from a decayed tooth, was not at all benefited.

"Three cases, epileptiform in character, were slightly or only temporarily relieved. Two cases were cured. One of these had existed for seven years, with an interruption of twenty months, procured by resection of the affected nerve.

"It would thus appear that, while we cannot indorse Prof. Guhler's statement that Duquesnel's aconitia never fails, we must recognize in it one of the most powerful and best agents for relieving and curing trigeminal neuralgia.

"3. We do not as yet know the forms of trigeminal neuralgia which can be most influenced by aconitia."

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STRYCHNIA.—Dr. R. Leared, in a paper read before the Medical Society of London, December 2, 1878 (*Brit. Med. Jour.*, Dec. 28) offers it as his

\* *Vide N. Y. Medical Journal*, Dec., 1878, p. 621.